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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,044	02/04/2004	Kazuo Taguchi	IIDAP6.001C2	3927
20995	7590	12/02/2004	EXAMINER	
KNOBBE MARTENS OLSON & BEAR LLP			MORILLO, JANEL COMBS	
2040 MAIN STREET			ART UNIT	
FOURTEENTH FLOOR			PAPER NUMBER	
IRVINE, CA 92614			1742	

DATE MAILED: 12/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,044

Applicant(s)

TAGUCHI, KAZUO

Examiner

Janelle Combs-Morillo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5 is/are rejected.
- 7) ☒ Claim(s) 2-4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sircar (US 5,976,278) in view of JP 61-119645A (JP'645) and optionally "Aluminum and Aluminum alloys".

Sircar teaches that following homogenization and extrusion, cold working by drawing (column 6 lines 5-6, column 5 lines 55-57) without localized deformation or necking (column 5 line 57), and thereby obtaining a tube product with an improved surface structure and higher yield (column 5 lines 66-67, column 6 line 1). Sircar teaches that it is conventional for 3000 series type heat exchanger tubes to be hot deformed (by extrusion) and then cold worked (by drawing) at column 3 lines 39-57.

Sircar teaches a composition consisting essentially of: $\leq 0.03\%$ Cu, 0.1-1.5% Mn, 0.03-0.35% Ti, up to 1% Mg, 0.06-1.0% Zn, $<0.01\%$ Ni, up to 0.3% Zr, up to 0.5% Fe, up to 0.5% Si (abstract, etc.), which overlaps the presently claimed composition ranges.

Sircar does not mention a) extruding by "port hole" extrusion, or b) the difference in electrical conductivity of individual portions in a lengthwise direction or the electrical conductivity value of said Al-Mn alloy processed by homogenizing, extruding, and drawing.

However, concerning item a), JP'645 teaches that port hole extrusion can be applied to 3000 series alloys that overlap the instant alloying ranges, and is used for producing seamed piping connectors for heat exchanger applications (abstracts, Fig. 1-3). It would have been obvious to one of ordinary skill in the art to perform port hole extrusion, as taught by JP'645, after the homogenization cycle of Sircar because Sircar teaches said alloy is how deformed by extrusion, and JP'645 teaches that similar 3000 alloys are suitable for "port hole" type extrusion.

Concerning item b), the examiner submits that because Sircar and JP'645 teach substantially the same process performed on a substantially overlapping alloy composition, then substantially the same properties, such as a homogeneous conductivity profile and electrical conductivity, is expected to occur. The examiner asserts that where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a prima facie case of either anticipation or obviousness has been established. *In re Best*, 562 F.2d 1252, 1255, 195 USPQ 430, 433 (CCPA 1977). "When the PTO shows a sound basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Alternatively, concerning item b), "Aluminum and Aluminum Alloys" at page 68 teaches that electrical conductivity for various 3000 series alloys typically range from 40-50% IACS, depending on the temper. It would have been within the level of one of ordinary skill in the art to perform the process taught by Sircar and JP'645 of homogenizing, port hole extruding, and drawing, on the Al-Mn alloy taught by Sircar (see above), thereby obtaining a electrical conductivity $\geq 39\%$ IACS, because "Aluminum and Aluminum Alloys" at page 68 teaches that

electrical conductivity for substantially similar 3000 series alloys typically range from 40-50% IACS.

Concerning claim 5, the examiner submits that because Sircar and JP'645 teach substantially the same process performed on a substantially overlapping alloy composition, then substantially the same properties, such as a absence of surface striations, are expected to occur.

Response to Amendment/Arguments

3. In the response filed on September 13, 2004, applicant amended claim 1 and submitted various arguments traversing the rejections of record. Applicant's argument that the present invention is allowable over the prior art of record because the prior art does not specify that homogenizing step produces a conductivity of not more than 1 IACS% has not been found persuasive. As stated above, because Sircar and JP'645 teach substantially the same process performed on a substantially overlapping alloy composition, then substantially the same properties, such as a homogeneous conductivity profile and electrical conductivity sufficient to inhibit preferential corrosion, is expected to occur. Applicant has not shown specific unexpected results (preferential corrosion, etc.) with regard to the substantially similar process of homogenizing, extruding, and drawing taught prior art of record.

Terminal Disclaimer

4. The terminal disclaimer filed on September 13, 2004 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any

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patent issuing from US patent application 09/771309 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Allowable Subject Matter

5. Claims 2-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art does not teach or suggest the presently claimed method of homogenizing and extruding the presently claimed alloy composition, substantially as set forth in said claims.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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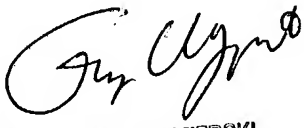
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janelle Combs-Morillo whose telephone number is (571) 272-1240. The examiner can normally be reached on 8:30 am- 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JCM

November 30, 2004


GEORGE WYSZOWSKI
PRIMARY EXAMINER